

From: Kenneth Gigliello/DC/USEPA/US
Sent: 12/17/2010 8:40:03 AM

To: Mike Gaydos/R8/USEPA/US@EPA; Cindy Beeler/R8/USEPA/US@EPA; Bernadette Rappold/DC/USEPA/US@EPA; John Blevins/R6/USEPA/US@EPA; Stephen Gilrein/R6/USEPA/US@EPA; Samantha Beers/R3/USEPA/US@EPA; Rick Duffy/DC/USEPA/US@EPA; Jon Silberman/DC/USEPA/US@EPA; Barbara McGarry/R2/USEPA/US@EPA; Cynthia Reynolds/R8/USEPA/US@EPA; Kaye Mathews/R8/USEPA/US@EPA; Kathleen Malone/R2/USEPA/US; Jeff Kenknight/R10/USEPA/US@EPA; John Keenan/R10/USEPA/US@EPA; Ann Pontius/DC/USEPA/US@EPA; Mamie Miller/DC/USEPA/US@EPA; Marcia Mia/DC/USEPA/US@EPA; Dan Chadwick/DC/USEPA/US@EPA

CC: Robert Lischinsky/DC/USEPA/US@EPA

Subject: EIA Forecast Doubles Shale Gas Estimate, Predicts Slow Growth in Carbon Emissions and Cabot Oil & Gas to Pay \$4.1 Million To Pennsylvania Families With Tainted Wells

EIA Forecast Doubles Shale Gas Estimate, Predicts Slow Growth in Carbon Emissions

The Energy Information Administration Dec. 16 released a long-range U.S. energy forecast that doubles the estimated resource base for natural gas produced from shale formations, based on the recent boom in shale gas drilling and new discoveries.

EIA Administrator Richard Newell said the agency now estimates the U.S. shale gas resource at 827 trillion cubic feet, compared with 353 trillion cubic feet in last year's forecast.

The tremendous increase has major repercussions for natural gas prices, which have been adjusted downward from previous forecasts, and for renewable energy, which will face stiff competition from natural gas-fired power plants in the electricity generation sector.

In addition, EIA predicted U.S. energy-related carbon dioxide emissions will grow almost 6 percent over 2005 levels by 2035, assuming no changes in policy.

Carbon emissions fell 3 percent in 2008 and nearly 7 percent in 2009 as a result of the recession. Emissions will rebound slowly reaching 2005 levels (5,980 million metric tons) by 2027. Emissions then will rise an additional 5 percent reaching 6,315 million metric tons in 2035, EIA estimated.

Energy efficiency gains will reduce consumption by 13 percent from where it would be otherwise.

EIA released its updated reference case, which is the most likely scenario under current laws and regulations, for energy projections to 2035.

EIA predicts that fossil fuels will continue to dominate the U.S. energy supply picture for the next 25 years, declining slightly from 83 percent in 2009 to an estimated 78 percent in 2035.

The reference case in EIA's *Annual Energy Outlook 2011* does not include legislation or proposals that have not yet become law. The agency will release in the spring scenarios that are more speculative.

Wind Energy, Oil Demand to Grow

Among other findings, EIA predicted that renewable energy will increase its share of electricity generation from 11 percent in 2009 to 14 percent in 2035 as a result of federal tax credits and state mandates.

Non-hydro renewable sources will nearly triple, meeting 23 percent of projected electricity generation growth through 2035. Most of the growth is wind power and biomass blended with coal. Solar, geothermal, and waste stay relatively small.

In addition, EIA said world oil prices will rise steadily to \$125 per barrel in 2035 (in 2009 dollars), down slightly from the year-earlier forecast

Most of the growth in oil demand will come from non-OECD countries lead by China, India, and the Middle East.

U.S. natural gas prices will rise more slowly than previously thought because of the expanded shale gas resource base, to about \$7 per million Btus in the wholesale market by 2035 from today's price under \$5 per million Btus.

Oil and natural gas imports will remain important but will decline as a share of U.S. energy consumption from 24 percent in 2009 to 18 percent in 2035.

Oil imports are declining due to increased domestic production, including biofuels, and greater vehicle fuel efficiency.

Ethanol to Fall Short of 2022 Mandate

Biofuels will fall short of the congressionally approved goal of 36 billion gallons by 2022, EIA predicts, but will exceed that target by 2030.

The fuel economy standards for new light-duty vehicles will achieve almost 38 miles per gallon by 2035, up from today's 28 miles per gallon, the agency predicts.

About 40 percent of U.S. light-duty vehicle sales in 2035 will come from non-gasoline sources such as clean diesel, hybrid electric, plug-in hybrids, all electric, and mostly 85-percent ethanol blends.

Non-hydro renewables and natural gas are the fastest growing sources for electricity generation, but coal remains dominant over the next 25 years because of the large existing capacity.

EIA estimates nuclear energy will remain essentially flat in terms of its share of the electricity supply mix, with the cost of building new nuclear plants rising. The latest forecast assumes five new nuclear power plants will be built over the next two decades.

By Lynn Garner

EIA's Annual Energy Outlook 2011 (AEO2011) reference case with projections through 2035 is available at <http://www.eia.doe.gov/forecasts/aeo/index.cfm?featureclicked=1&>.

Cabot Oil & Gas to Pay \$4.1 Million To Pennsylvania Families With Tainted Wells

PHILADELPHIA—The 19 families in northeastern Pennsylvania's Dimock Township whose water wells are contaminated with methane gas will receive a total of \$4.1 million from Houston-based Cabot Oil & Gas Corp., under terms of a settlement announced by the Pennsylvania Department of Environmental Protection (DEP) Dec. 16.

Cabot also will pay the department \$500,000 to offset the cost of the agency's investigation into the gas migration problem following a January 2009 report that a private water well had exploded.

The DEP determined that methane gas from a shallow formation had been disturbed and migrated through poorly constructed wells that Cabot built while drilling the deeper Marcellus Shale formation, a finding Cabot disputes.

In addition to the \$4.1 million payment, which will be apportioned among the 19 households based on the assessed value of their property, Cabot must pay to install whole-house gas mitigation devices in each of the affected homes whose owners want them.

The DEP said it has abandoned a plan it announced in September to extend a public water line 5.5 miles to provide the affected homes with a reliable source of safe drinking water (189 DEN A-5, 10/1/10).

At the time, the state agency said it would seek to recover the \$12 million cost of the project from Cabot, through legal action if necessary.

Earlier Consent Orders Superseded

The consent order and settlement supersedes an agreement the DEP negotiated with Cabot in November 2009, which was modified twice in 2010 as the DEP sought to satisfy residents whose drinking water had been affected and to address the source of the migrating gas.

In April, the agency ordered Cabot to cap three wells it believed were responsible for the problem, suspended its review of Cabot's pending permit applications for new drilling activities statewide. It also barred the company from drilling any new wells in a nine-square-mile area around Dimock (73 DEN A-6, 4/19/10).

Well Testing, Water Screening Requirements

Terms of the new accord include ongoing requirements for Cabot to perform and report to the DEP results of gas well pressure testing and water supply screening as well as sampling for free combustible gas.

Once it demonstrates compliance with the terms of the settlement, Cabot will be permitted to resume well completion and begin new drilling starting in April 2011.

"This agreement provides a reasonable and pragmatic way forward for all parties," Cabot President Dan O. Dinges said in a statement. "The common ground we found to settle provides the right balance of regulations, financial payments, timely execution, and operational safeguards that in the end will protect the resources of Pennsylvania, promote economic development of clean-burning natural gas, and continue to create good-paying jobs in the natural gas industry."

DEP Secretary John Hanger said gas levels in a majority of the tainted water wells have dropped significantly since the department initiated its enforcement actions, which was in line with the agency's primary goal to ensure that Cabot's gas wells were safe and that they were not polluting local water wells.

"This agreement lays the foundation for families to finally put an end to this ordeal," Hanger said.

By Lorraine McCarthy

Text of the consent order and agreement is available at http://www.cabotog.com/pdfs/FinalA_12-15-10.pdf.

